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| 10/041,089      | 01/07/2002  | Kyu-Jin Kim          | 5019-1-002          | 2398             |

7590 10/22/2003  
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EXAMINER

JENKINS, DANIEL J

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1742

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/041,089

Applicant(s)

KIM, KYU-JIN

Examiner

Daniel J. Jenkins

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-6 and 9-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "polyimide/phenolic resin" is indefinite. The Examiner understands this term to mean either a polyimide resin or a phenolic resin and treats the claims accordingly.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1-5, 9, 12, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsutani et al. '209.

Matsutani et al. '209 disclose the invention substantially as claimed.

Matsutani et al. '209 disclose a method of making a core comprising:

mixing an a powder with a binder and an organic solvent to form a mixture (col.

3, lines 1-10; col. 4, lines 6-45);

pressing the mixture to form a compact mixture (col. 4, lines 36-41 and further disclose wherein the pressing is at 10t/cm<sup>2</sup>, allowing one of ordinary skill in the art to

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vary the pressure depending upon the amount of solids loading in the mixture in order to allow for flow into the mold;

heat treating the mixture to form a core (col. 3, lines 54-59).

Matsutani et al. '209 further disclose wherein the powder is selected from the group comprising amorphous alloy powders (col. 3, line 5).

Matsutani et al. '209 further disclose wherein the amount of resin is between 0.1-5% (col. 8, lines 40-41).

Matustani et al. '209 further disclose wherein the resin is selected from a group comprising phenol resin (col. 12, line 53).

Matsutani et al. '209 further disclose wherein the pressing is at room temperature (inferred by the lack of specific temperature, allowing one of ordinary skill in the art to vary the temperature depending upon the amount of solids loading in the mixture in order to allow for flow into the mold).

Matsutani et al. '209 further disclose wherein the heat treatment is between 350-600oC (col. 3, lines 54-59), allowing one of ordinary skill in the art to vary the temperature depending upon the amount of solids loading in the mixture in order to allow for flow into the mold.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsutani et al. '209 in view of Hirose et al.

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Matsutani et al. '209 disclose the invention substantially as claimed (see paragraph 4 above). However, Matsutani et al. '209 is silent as to the method of forming the amorphous powder.

Hirosawa et al. teaches to heat treat formed amorphous alloy powder in the same field of endeavor for the purpose of improving the magnetic properties of the powder (col. 4, lines 50-53; col. 5, lines 59-62).

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsutani et al. '209 in view Otsuka et al.

Matsutani et al. '209 disclose the invention substantially as claimed (see paragraph 4 above). However, Matsutani et al. '209 is silent as the the particular amorphous alloys used in his invention, leaving it to one of ordinary skill to select from the known amorphous alloys.

Otsuka et al. teaches that known amorphous alloys in the art include Fe-Si-B (see col. 2, lines 61-65), and it would be obvious to one of ordinary skill in the art to use this alloy in the invention of Matustani et al. as it is a known amorphous alloy.

7. Claims 7, 8, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsutani et al. '209 in view of Hirosawa et al. and Otsuka et al. Matsutani et al. '209 disclose the invention substantially as claimed (see paragraph 5 above).

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However, Matsutani et al. '209 is silent as to the particular amorphous alloys used in his invention, leaving it to one of ordinary skill to select from the known amorphous alloys.

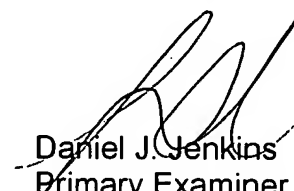
Otsuka et al. teaches that known amorphous alloys in the art include Fe-Si-B (see col. 2, lines 61-65), and it would be obvious to one of ordinary skill in the art to use this alloy in the invention of Matsutani et al. as it is a known amorphous alloy.

The resultant core, formed under the same process conditions with the same components, would result in a core with parameters as claimed by Applicant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Jenkins whose telephone number is 703-306-4157. The examiner can normally be reached on M-TH 6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Daniel J. Jenkins  
Primary Examiner  
Art Unit 1742

dj  
September 28, 2003